IN THE CLAIMS:

1. (Currently Amended) A heating system for a vehicle, the heating system comprising:

a heating air blower for generating a heating air stream to be introduced into the interior space of the vehicle;

a heater with a heat exchanger arrangement for heating the heating air stream being delivered by said heating air blower;

a heating air stream temperature sensor arrangement for generating an output linked with the temperature at which the heating air stream heated by said heater is discharged;

a mixing arrangement for setting an outside air/ambient air ratio of the air to be fed to said heat exchanger arrangement;

an outside temperature sensor arrangement for generating an output linked with an outside temperature; and

a control arrangement for controlling said mixing arrangement to set an outside air/ambient air ratio on the basis of an output of said outside temperature sensor arrangement and to set the heat output of said heater on the basis of the output of said heating air stream temperature sensor arrangement.

2. (Original) A heating system in accordance with claim 1, wherein said control device controls said mixing arrangement such that the outside air/ambient air ratio is lower in case of a lower outside temperature.

3. (Currently Amended) A heating system for a vehicle, the heating system comprising:

a heating air blower for generating a heating air stream to be introduced into the interior space of a vehicle;

a heating air stream temperature sensor arrangement for generating an output linked with the temperature at which the heating air stream heated by said heater is discharged;

a heater with a heat exchanger arrangement for heating the heating air stream being delivered by said heating air blower;

a mixing arrangement for setting an outside air/ambient air ratio of the air to be fed into said heat exchanger arrangement;

a vehicle interior space temperature sensor arrangement for generating an output linked with the temperature of the interior space of the vehicle; and

a control arrangement for controlling said mixing arrangement for setting the outside air/ambient air ratio on the basis of the output of said vehicle interior space temperature sensor arrangement and to set the heat output of said heater on the basis of the output of said heating air stream temperature sensor arrangement.

4. (Original) A heating system in accordance with claim 3, wherein said controlling arrangement controls said mixing arrangement such that the outside air/ambient air ratio is lower in case of a lower temperature of the interior space of the vehicle.

5. (Currently Amended) A heating system ~~in accordance with claim 4,~~ for a vehicle, the

heating system comprising:

a heating air blower for generating a heating air stream to be introduced into the interior space of a vehicle;

a heater with a heat exchanger arrangement for heating the heating air stream being delivered by said heating air blower;

a heating air stream temperature sensor arrangement for generating an output linked with the temperature at which the heating air stream heated by said heater is discharged;

a mixing arrangement for setting an outside air/ambient air ratio of the air to be fed into said heat exchanger arrangement;

a vehicle interior space temperature sensor arrangement for generating an output linked with the temperature of the interior space of the vehicle;

a vehicle interior space desired temperature presetting arrangement; and

a control device for controlling said mixing arrangement for setting the outside air/ambient air ratio on the basis of a deviation of the temperature of the interior space of the vehicle from the interior space desired temperature and to set the heat output of said heater on the basis of the output of said heating air stream temperature sensor arrangement.

6. (Currently Amended) A heating system in accordance with claim 1, further comprising:

~~a heating air stream temperature sensor arrangement for generating an output linked with the temperature at which the heating air stream heated by said heater is discharged;~~

a vehicle interior space desired temperature presetting arrangement; and

a vehicle interior space temperature sensor arrangement , wherein said controlling arrangement is designed to set the delivery capacity of said heating air blower on the basis of an output of said vehicle interior space temperature sensor arrangement and the interior space desired temperature preset by said vehicle interior space desired temperature presetting arrangement ~~and to set the heat output of said heater on the basis of the output of said heating air stream temperature sensor arrangement~~.

7. (Original) A heating system in accordance with claim 1, wherein said controlling arrangement comprises a first control device for controlling said heating air blower and said mixing arrangement as well as a second control device for controlling said heater, wherein said first control device has the output of said outside temperature sensor arrangement and/or of a vehicle interior space temperature sensor arrangement and/or of a vehicle interior space desired temperature presetting arrangement as the input variables.

8. (Currently Amended) A heating system in accordance with claim 3, further comprising:

~~a heating air stream temperature sensor arrangement for generating an output linked with the temperature at which the heating air stream heated by said heater is discharged; and~~

a vehicle interior space desired temperature presetting arrangement, wherein said controlling arrangement is designed to set the delivery capacity of said heating air blower on

the basis of an output of said vehicle interior space temperature sensor arrangement and the interior space desired temperature preset by said vehicle interior space desired temperature presetting arrangement ~~and to set the heat output of said heater on the basis of the output of said heating air stream temperature sensor arrangement~~.

9. (Original) A heating system in accordance with claim 3, wherein said controlling arrangement comprises a first control device for controlling said heating air blower and said mixing arrangement as well as a second control device for controlling said heater, wherein said first control device has the output of an outside temperature sensor arrangement and/or of said vehicle interior space temperature sensor arrangement and/or of a vehicle interior space desired temperature presetting arrangement as the input variables.

10. (Currently Amended) A heating system in accordance with claim 5, ~~further comprising:~~

~~a heating air stream temperature sensor arrangement for generating an output linked with the temperature at which the heating air stream heated by said heater is discharged,~~ wherein said controlling arrangement is designed to set the delivery capacity of said heating air blower on the basis of an output of said vehicle interior space temperature sensor arrangement and the interior space desired temperature preset by said vehicle interior space desired temperature presetting arrangement ~~and to set the heat output of said heater on the basis of the output of said heating air stream temperature sensor arrangement~~.

11. (Original) A heating system in accordance with claim 5, wherein said controlling arrangement comprises a first control device for controlling said heating air blower and said mixing arrangement as well as a second control device for controlling said heater, wherein said first control device has the output of an outside temperature sensor arrangement and/or of said vehicle interior space temperature sensor arrangement and/or of said vehicle interior space desired temperature presetting arrangement as the input variables.